

From: ron Fri Apr 25 16:54 PDT 1997  
From: ron (Ron Kwok)  
To: acsys@npolar.no  
Cc: ron@rgps1.JPL.NASA.GOV  
Subject: abstract for Conference on Polar Processes and Global Climage  
Date: Fri, 25 Apr 1997 16:54:07W1 (PDT)

Submission for Polar Processes and Global Climate Conference at Rosario Resort

Ice Flux through Fram Strait from Passive Microwave Ice Motion

**Ron Kwok**  
Jet Propulsion Laboratory  
MS 300 235  
4800 Oak Grove Dr  
Pasadena, CA 91109  
email: ron@rgps1.jpl.nasa.gov

We have derived 18 years of ice motion in the Fram Strait region from SMMR and SSMI passive microwave observations. From the ice motion, we compute the flux of ice area through Fram Strait over this period. The flux gate is defined by the 80 deg parallel between the northeast coast of Greenland and the west coast of Svalbard. The interannual variability is quite high and varies between 500,000 sq km/year and 1.2 million sq km/year. These observations also indicate an increase in the areal flux over this period. The computation of areal flux is fairly sensitive to the flow profile through the Strait. We are currently estimating the errors in these flux calculations. In the interim, we will also compute the volume flux of ice through Fram Strait using available VLS datasets.

---

**abstract for Conference on Polar Processes and Global Climage**